

DWG #	DRAWING TITLE
T-1	TITLE SHEET
T-2	1 AND 2 WTC INDEX OF DRAWINGS AND STAGING OF XL3 CONVERSION
E-1	1 AND 2 WTC LEGEND, ABBREVIATIONS, KEY PLAN AND GENERAL NOTES
E-2	1 WTC 86 LEVEL MER FIRE ALARM SYSTEM RISER DIAGRAM
E-3	1 WTC 86 LEVEL MER PLAN
E-4	1 WTC 86 LEVEL MER REMOVAL PLAN
E-5	1 WTC 86 LEVEL MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM
E-6	1 WTC 7th FLOOR MER FIRE ALARM SYSTEM RISER DIAGRAM
E-7	1 WTC 7th FLOOR MER PLAN
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E-9	1 WTC 7th FLOOR MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM
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E-19	1 WTC 108th FLOOR MER & 109th FLOOR SUBSTATION PLAN
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E-21	1 WTC 108th FLOOR MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM
E-22	2 WTC 86 LEVEL MER FIRE ALARM SYSTEM RISER DIAGRAM
E-23	2 WTC 86 LEVEL MER PLAN
E-24	2 WTC 86 LEVEL MER REMOVAL PLAN
E-25	2 WTC 86 LEVEL MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM
E-26	2 WTC 7th FLOOR MER FIRE ALARM SYSTEM RISER DIAGRAM
E-27	2 WTC 7th FLOOR MER PLAN
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E-30	2 WTC 41st FLOOR MER FIRE ALARM SYSTEM RISER DIAGRAM
E-31	2 WTC 41st FLOOR MER PLAN AND 42nd FLOOR PART PLAN
E-32	2 WTC 41st AND 42nd FLOORS MER REMOVAL PLAN
E-33	2 WTC 41st FLOOR MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM

DWG #	DRAWING TITLE
E-34	2 WTC 75th FLOOR MER FIRE ALARM SYSTEM RISER DIAGRAM
E-35	2 WTC 75th FLOOR MER PLAN
E-36	2 WTC 75th FLOOR MER REMOVAL PLAN
E-37	2 WTC 75th FLOOR MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM
E-38	2 WTC 108th FLOOR MER FIRE ALARM SYSTEM RISER DIAGRAM
E-39	2 WTC 108th FLOOR MER PLAN
E-40	2 WTC 108th AND 109th FLOORS MER REMOVAL PLAN
E-41	2 WTC 108th FLOOR MER EXISTING XL3 PANEL BLOCK WIRING DIAGRAM
E-42	1 AND 2 WTC 9th, 40th, 43rd, 74th, 77th AND 107th FLOORS TELEPHONE & ELECTRIC CLOSETS SMOKE DETECTOR RISER DIAGRAM
E-43	1 WTC 9th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-44	1 WTC 40th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-45	1 WTC 43rd FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-46	1 WTC 74th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-47	1 WTC 77th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-48	1 WTC 107th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-49	2 WTC 9th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-50	2 WTC 40th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-51	2 WTC 43rd FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-52	2 WTC 74th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-53	2 WTC 77th FLOOR SMOKE DETECTOR LAYOUT AND REMOVAL
E-54	2 WTC 107th FLOOR SMOKE DETECTOR REMOVAL PLAN
E-55	TYPICAL DETAILS AND WIRING DIAGRAMS SHEET 1 OF 2
E-56	TYPICAL DETAILS AND WIRING DIAGRAMS SHEET 2 OF 2

### STAGING OF XL3 CONVERSION

1. ALL NEW DEVICES SHALL BE PREPROGRAMMED, PRIOR TO INSTALLATION.

#### STAGE ONE

1. INSTALL ALL NEW CONDUITS AND BACKBOXES OF DEVICES
2. PRIOR TO INSTALLATION OF INTERPOSING RELAYS, RELOCATE EXISTING BATTERIES FROM XL3 CABINET. SEE TYPICAL DETAIL "F" AND NOTE 7 ON DWG E-55.
3. INSTALL AND CONNECT ALL NEW FIRE ALARM DEVICES SUCH AS, SMOKE DETECTORS, PULL STATIONS, TRYS AND INTERPOSING RELAYS.
4. INSTALL WIRING AT ALL NEW BACKBOXES AND BETWEEN XL3 PANELS, XNET CABINETS AND INTERFACE CABINETS.
5. PERFORM SHAPING AND LABELING OF NEW WIRING IN XNET, TSC, XL3 AND INTERFACE CABINETS TO EXISTING TERMINALS BLOCKS. (SEE DWG'S E-5, E-9, E-13, E-17, E-21, E-25, E-28, E-33, E-37, E-41).
6. TEST ALL FIRE ALARM CABLES IN ACCORDANCE WITH THE AUTHORITY'S ENGINEERING SPECIFICATION #16910.
7. FINAL CONNECTION OF THE FIRE ALARM WIRING, IN THE EXISTING CABINETS, AND RECONNECTING OF FAN SHUTDOWN CIRCUITS, AND SOLENOID VALVE CIRCUITS SHALL BE DONE IN THE PRESENCE OF THE ENGINEER.

#### STAGE TWO

1. AFTER INSTALLATION, TESTING AND TURNING ON OF FIRE ALARM SYSTEM, CONTRACTOR SHALL REMOVE OLD DUCT DETECTORS, SMOKE DETECTORS, PULL STATIONS, TRX, ALARM BELL, TROUBLE HORN, REMOTE ALARM LAMP, AND ASSOCIATED CONDUIT AND WIRING BACK TO XL3 PANELS.
2. REMOVE CONDUIT AND ASSOCIATED WIRING FROM RMT'S AND INTERFACE PANELS IN ELECTRICAL CLOSET "C" TO XL3 PANELS.
3. REMOVE IN XL3 CABINET 1 & 2 ALL INTERNAL COMPONENTS CONSISTING OF BATTERIES, BATTERY TRAYS, ANUNCIATORS, POWER SUPPLIES AND WIRING. FAN SHUTDOWN AND SOLENOID VALVES CIRCUITRY AND ASSOCIATED CARD CAGES AND TERMINALS SHALL REMAIN. THIS WORK SHALL BE DONE IN THE PRESENCE OF THE ENGINEER. ALL PARTS REMOVED FROM XL3 PANELS SHALL BE RETURNED TO THE AUTHORITY.
4. REMOVE TEMPORARY INSTALLED 86-55R CABINETS WITH BATTERIES AND ASSOCIATED CONDUIT AND WIRING AND RETURN TO THE AUTHORITY.

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**THE PORT AUTHORITY  
OF NY & NJ**

ENGINEERING PROGRAM MANAGER  
WORLD TRADE  
CENTER  
CHIEF ELECTRICAL ENGINEER

No. Date Revision Approved

Engineering Department  
Design Division

**The World Trade  
Center**

Title  
**FIRE ALARM SYSTEM  
PHASE III  
XL3 CONVERSION  
ELECTRICAL  
1 AND 2 WTC  
INDEX OF DRAWINGS  
AND STAGING OF XL3  
CONVERSION**

This drawing subject to conditions in contract.  
All inventions, ideas, designs and methods  
herein are reserved to Port Authority and  
may not be used without its written consent.

ROYZMAN  
FELDSTEIN ROYZMAN A.S.  
Designed by Drawn by Checked by

Date 5-20-99 Scale NONE

Contract Number Drawing Number

WTC-861.082 T-2

I HEREBY CERTIFY THAT THIS IS A TRUE AND  
CORRECT COPY OF ONE OF THE CONTRACT  
DRAWINGS CONSTITUTING A PART OF  
CONTRACT NO. WTC-861-082-141  
THE FORM IN WHICH SAID DRAWINGS  
EXISTED AT THE TIME THE SAID CONTRACT  
WAS EXECUTED BY THE PARTIES.

DATE 2/1/00 CONTRACT ENCL. 141

DATE 2/1/00 ENGINEERING PROGRAM MGR